

**Before the Federal Communications Commission  
Washington, D.C. 20554**

**In the Matters of:**

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| <b>Accelerating Wireless Broadband Deployment by<br/>Removing Barriers to Infrastructure Investment</b> | ) | <b>WT Docket No. 17-79</b>  |
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| <b>Revising the Historic Preservation Review Process<br/>for Wireless Facility Deployments</b>          | ) | <b>WT Docket No. 15-180</b> |
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| <b>Accelerating Wireline Broadband Deployment by<br/>Removing Barriers to Infrastructure Investment</b> | ) | <b>WC Docket No. 17-84</b>  |
|   | ) |                             |

To: Office of the Secretary  
Federal Communications Commission  
Washington, DC 20554

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July 6, 2017

Dear Sir or Madam,

Contrary to industry assertions, there is sufficient research showing adverse environmental and human health effects of radiation from wireless technology at levels far below the current FCC RF limits to justify the FCC placing a moratorium on the rollout of 5G. A moratorium should also be placed on installation of additional antennas and a warning should be issued to users of wireless technology that they should take precautionary action to minimize their exposure to wireless radiation while new guidelines are established. An initial approach for establishing new guidelines is described in the attached paper by Dr. Pall (<https://www.ncbi.nlm.nih.gov/pubmed/25879308>). It is important that all wired communication infrastructure be preserved, including the copper line phone system, so that people have safe reliable communication options.

The FCC should not be further preempting local authority. Local governments should have the right to protect their residents' health and the local environment from harm, no matter what the industry is that will be perpetrating the harm. The local government should have the right to negotiate a favorable lease for its right-of-ways from a for-profit entity, which telecom companies most certainly are. Taxpayers should not be forced to submit first to an industry that will harm their health and degrade their environment and then required to subsidize them as well. The FCC must halt implementation of 5G wireless while a NEPA review of the environmental and human health impacts and an EIS are completed. The FCC has put the cart before the horse in seeking to preempt local authority for a project (5G) that requires a NEPA review without first performing that NEPA review.

There is consensus within the scientific community that the existing FCC limits for wireless radiation do not protect the population from biological effects ([www.EMFscientist.org](http://www.EMFscientist.org)). At least three federal agencies have indicated that the FCC radiofrequency (RF) radiation limits with which wireless technology must comply are not protective of either human health or the environment during the chronic non-thermal exposures ubiquitously present today: the U.S. National Toxicology Program (NTP), which released findings that **wireless radiation causes cancer and breaks DNA** (<http://ehtrust.org/science/facts-national-toxicology-program-cellphone-rat-cancer-study/>); The Department of Interior (DOI), which stated "**the electromagnetic radiation standards used by the Federal Communications Commission (FCC) continue to be based on thermal heating, a criterion now nearly 30 years out of date and inapplicable today**" ([http://www.ntia.doc.gov/files/ntia/us\\_doi\\_comments.pdf](http://www.ntia.doc.gov/files/ntia/us_doi_comments.pdf)); and The Environmental Protection Agency (EPA), which stated "**The FCC's current exposure guidelines ... are thermally based, and do not apply to chronic, nonthermal exposure situations.**" ([http://www.emrpolicy.org/litigation/case\\_law/docs/noi\\_epa\\_response.pdf](http://www.emrpolicy.org/litigation/case_law/docs/noi_epa_response.pdf)).

Therefore, the FCC must halt expansion of exposure to wireless technology until population-based biologically-protective RF limits have been put in place.

### **FCC must complete a NEPA review and EIS prior to implementing 5G**

The potential environmental and human health hazards from 5G necessitates a comprehensive NEPA review [*Env'tl. Def. Fund v. Tenn. Valley Auth.*, 468 F.2d 1164, 1174 (6th Cir. 1972)] and, specifically, a formal Environmental Impact Statement (EIS). The EIS should include a full review of environmental effects, as well as human health and safety. The FCC has an obligation to evaluate whether "*services or capabilities are essential to public health, safety, or in the public interest*" (H.R. Report No. 104-204, p. 94) and so must protect the public from possible harm caused by radiofrequency radiation.

The FCC is not entitled to essentially disregard comments that do not provide global cost-benefit analysis (*Scenic Hudson v. Federal Power Commission*). The Commission has an affirmative duty to inquire into and consider all relevant facts. The FCC must use government resources to perform the relevant analysis. The FCC should request the EPA use its National Risk Management Research Laboratory resources and experts to conduct all cost analyses necessary.

This proposal also triggers the need for a Memoranda of Understanding (MOU) with U.S. Fish and Wildlife Service under Executive Order 13186 concerning effects on migratory birds.

### **U.S. Department of Interior States: Current Radiation Standards Inapplicable**

On February 7, 2014, the U.S. Department of Interior (DOI) stated, “*the electromagnetic radiation standards used by the Federal Communications Commission (FCC) continue to be based on thermal heating, a criterion now nearly 30 years out of date and inapplicable today,*” in reference to the current limits governing radiation utilized by WiFi. The DOI letter discusses a number of studies in which birds appear harmed by low-level RF radiation associated with cell towers and other wireless technologies ([http://www.ntia.doc.gov/files/ntia/us\\_doi\\_comments.pdf](http://www.ntia.doc.gov/files/ntia/us_doi_comments.pdf)). **Furthermore, DOI required FirstNet to undergo a comprehensive NEPA review and planning program. Implementation of 5G, which will have similar widespread impacts, requires a NEPA review as well.**

The National Toxicology Program recently released results showing that radiofrequency radiation (RFR) can indeed both break DNA and cause cancer. A replicated European study has found that RFR is also a cancer promoter (<http://ehtrust.org/science/facts-national-toxicology-program-cellphone-rat-cancer-study/>). Furthermore, the literature on RFR in the very high frequency bands required for 5G document DNA breakages, serious cellular resonance effects, and other detrimental metabolic effects ([http://www.bioinitiative.org/report/wp-content/uploads/pdfs/sec15\\_2012\\_Evidence\\_Disruption\\_Modulation.pdf](http://www.bioinitiative.org/report/wp-content/uploads/pdfs/sec15_2012_Evidence_Disruption_Modulation.pdf) and [http://www.stopglobalwifi/documents/2001\\_kositsky\\_et\\_al.\\_-\\_ussr\\_review.pdf](http://www.stopglobalwifi/documents/2001_kositsky_et_al._-_ussr_review.pdf)).

The EPA has made it clear that the FCC RF limits are not protective of anyone during the chronic non-thermal exposures the FCC has forced on us: “The FCC's current exposure guidelines, as well as those of the Institute of Electrical and Electronics Engineers (IEEE) and the International Commission on Non-ionizing Radiation Protection, **are thermally based, and do not apply to chronic, nonthermal exposure situations.** They are believed to protect against injury that may be caused by acute exposures that result in tissue heating or electric shock and burn. The hazard level (for frequencies generally at or greater than 3 MHz) is based on a specific absorption dose-rate, SAR, associated with an effect that results from an increase in body temperature. The FCC's exposure guideline **is considered protective of effects arising from a thermal mechanism but not from all possible mechanisms.** Therefore, the generalization by many that the guidelines protect human beings from harm by any or all mechanisms is not justified.” (emphasis added) ([http://www.emrpolicy.org/litigation/case\\_law/docs/noi\\_epa\\_response.pdf](http://www.emrpolicy.org/litigation/case_law/docs/noi_epa_response.pdf))

Non-industry funded studies have consistently found links between RFR and various negative biological effects ([www.bioinitiative.org](http://www.bioinitiative.org)). They include serious neurological, cardiac, and metabolic effects, as well as DNA breakage which can lead to cancer and genetic defects (<http://www.mainecoalitiontostopsmartmeters.org/?p=1469>).

My family has already experienced harm from the rapidly rising ambient levels of RFR. The rising ambient RFR levels, due to the recent wireless insanity, are already causing my family to experience symptoms of Radiofrequency Sickness. My sons get cardiac arrhythmias. My wife is functionally impaired by RFR in multiple ways. I experience high blood sugar and increased insulin resistance when I am exposed to RFR, in addition to other symptoms.

The rapidly increasing RFR levels is impacting our ability to earn a living. I used to vend at farmers markets in Madison, Wisconsin and I am no longer able to do so due to the rising ambient RFR levels causing serious neurological symptoms suggestive of incipient ALS. The symptoms disappeared at the end of market season when I was able to spend time at my shielded home in much lower ambient RFR levels. (The levels outside our home are hundreds to thousands of times lower than ambient Madison levels. Even so, I can tell the improvement in my health when I am inside my shielded home where the levels are a third to a tenth the ambient outside levels and peaks are reduced by over half.) ALS is a progressive fatal neurological disorder whose incidence is increasing ([https://wwwn.cdc.gov/als/Download/Neurol%20Clin ALS Risk Factors 2015.pdf](https://wwwn.cdc.gov/als/Download/Neurol%20Clin%20ALS%20Risk%20Factors%202015.pdf)). ALS is being linked to factors including oxidative damage (positively linked to smoking which causes oxidative damage), EMF exposure, and military service which would entail high levels of RFR exposure. RFR has been shown to cause oxidative damage (<http://www.ncbi.nlm.nih.gov/pubmed/26151230>). If my experience is any indicator, the FCC is directly responsible for those deaths by promoting a dangerous technology in complete disregard of the science and the scientists who are calling for biologically-based population-protective RFR safety limits. This willful disregard of the consequences is a violation of our human rights and the Nuremberg Code of Ethics, please read "Wireless Technology Violates Human Rights," attached and at <http://www.electricalpollution.com/documents/WirelessViolatesHumanRights2016.pdf>.

Studies, including the National Toxicology Program studies, have shown wireless to be a dangerous technology and 5G, according to Chairman Wheeler's own comments, is an infrastructure intensive technology. So, invest in safe, wired infrastructure instead of spending a lot of money to saturate entire communities with hazardous radiation. The "cool" factor is not worth the peril.

Halt plans to preempt local zoning authority. The public health and the environment are more important than speedy implementation of another dangerous wireless technology. Taxpayers should not be forced to subsidize an industry worth billions of dollars. The telecom industry can afford to pay the fees and negotiate lease agreements like any other business would need to do.

Take the time to do due diligence and protect all our safety by conducting a comprehensive NEPA review and EIS. Internationally, steps are being taken to protect society from harm by wireless technology (<http://ehtrust.org/policy/international-policy-actions-on-wireless/>). Protect your family, friends, and the country - implement a wired broadband internet program instead of forcing 5G on our communities. Be on the right side of history.

Sincerely,

Dan Kleiber